# Fort Hood Interdepartmental Cooperation on High Accuracy Site Mapping

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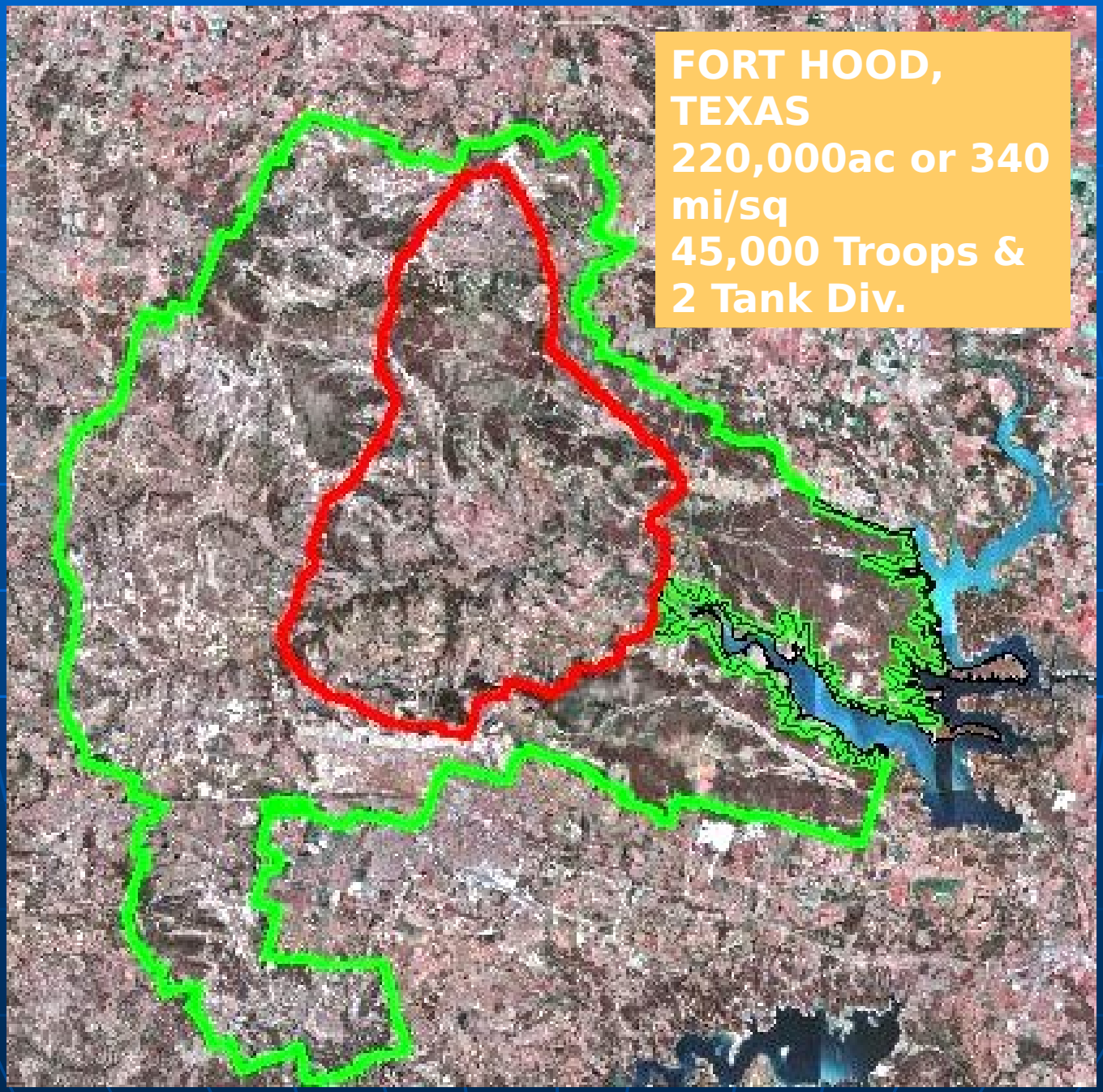
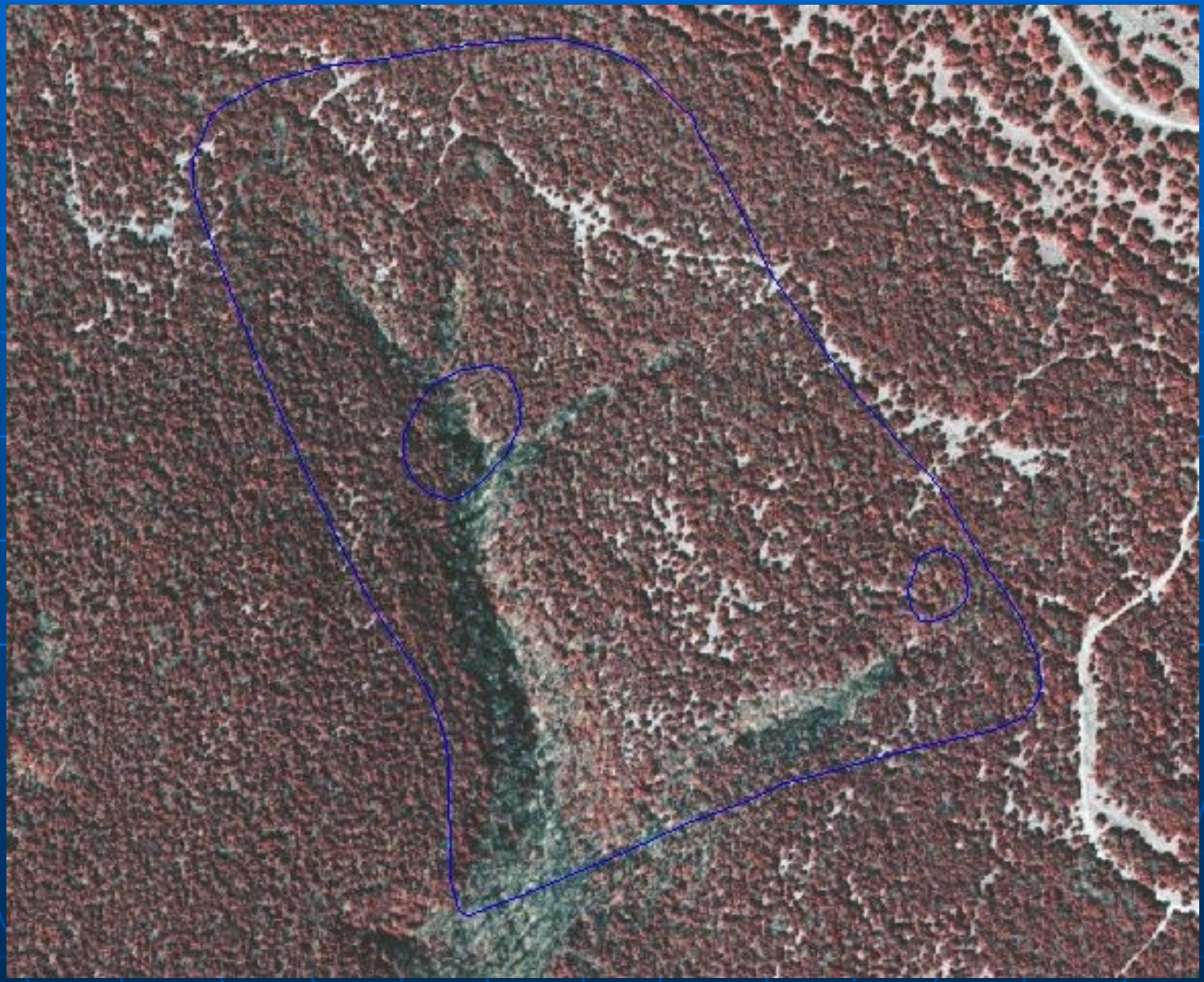
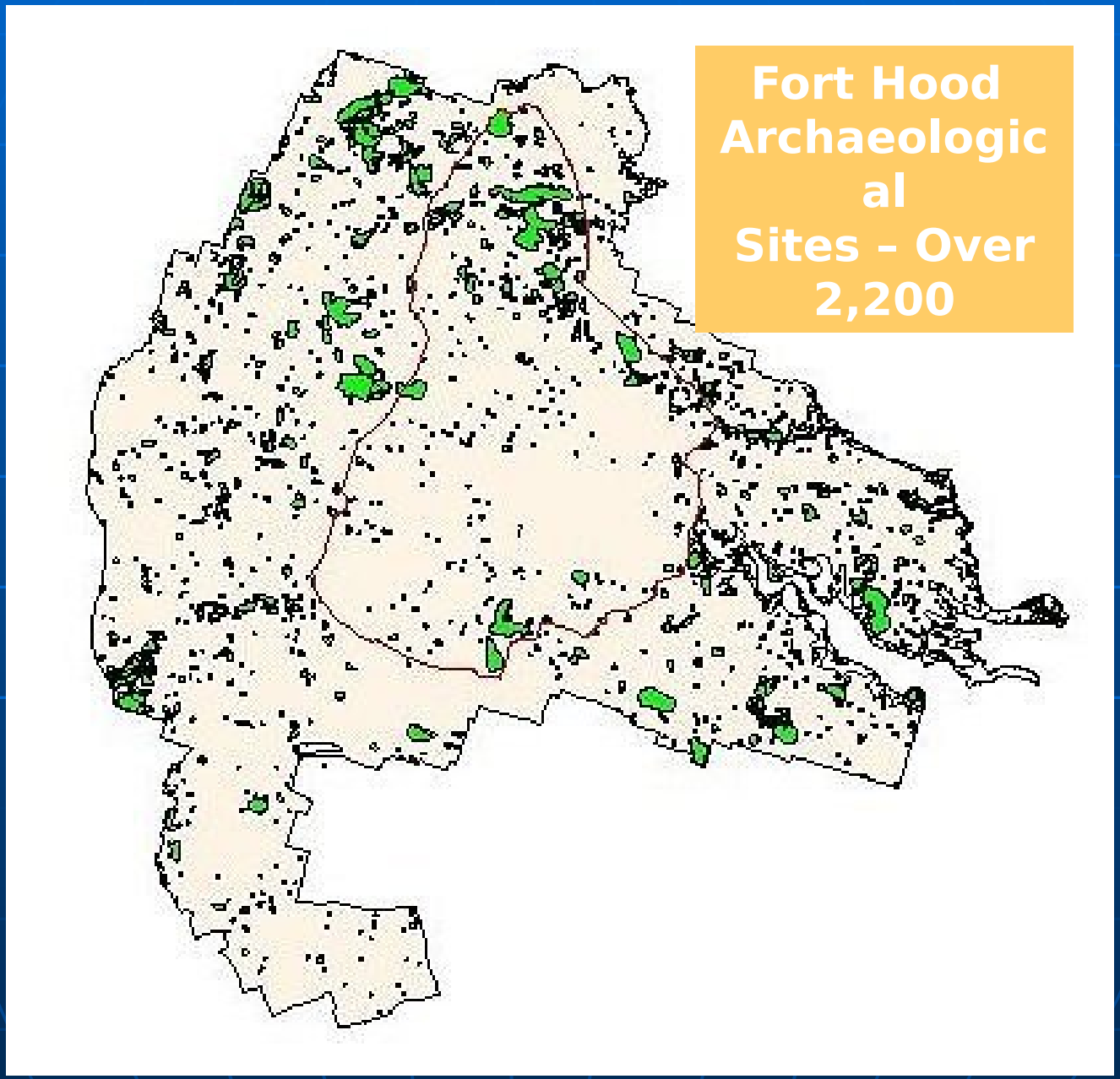
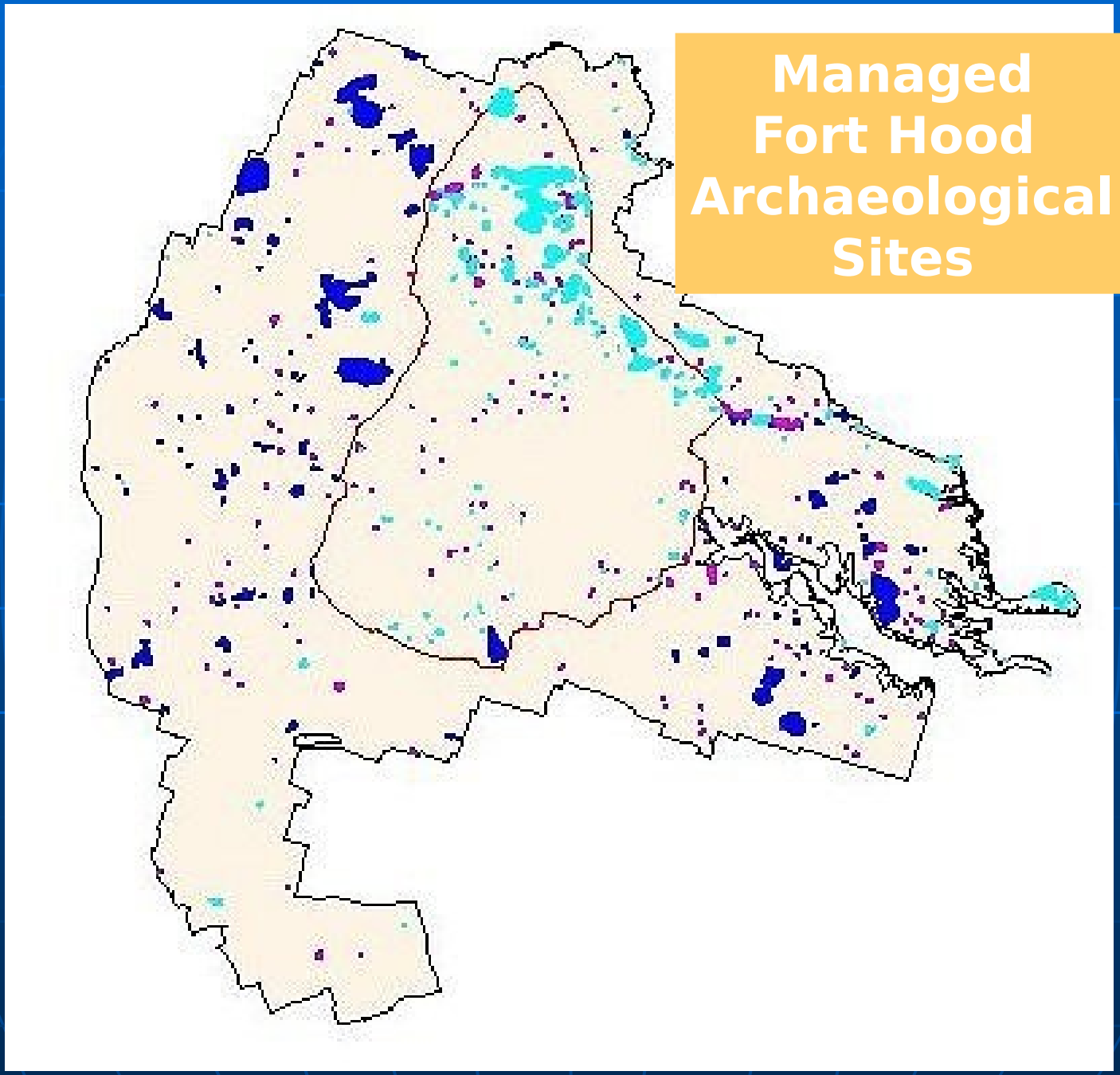
and Kristen E. Wenzel


FORT HOOD,
TEXAS
220,000ac or 340
mi/sq
45,000 Troops &
2 Tank Div.




Fort Hood
Archaeologic
al
Sites – Over
2,200

# Managed Fort Hood Archaeological Sites



# GPS SPECIFIALTIONS & EQUIPMENT

**TRIMBLE GEOEXPLORER II –** 2-to-5 meter accuracy after differential correction, 8 channel, Discontinued Trimble Dealers sell used for **$1,500**

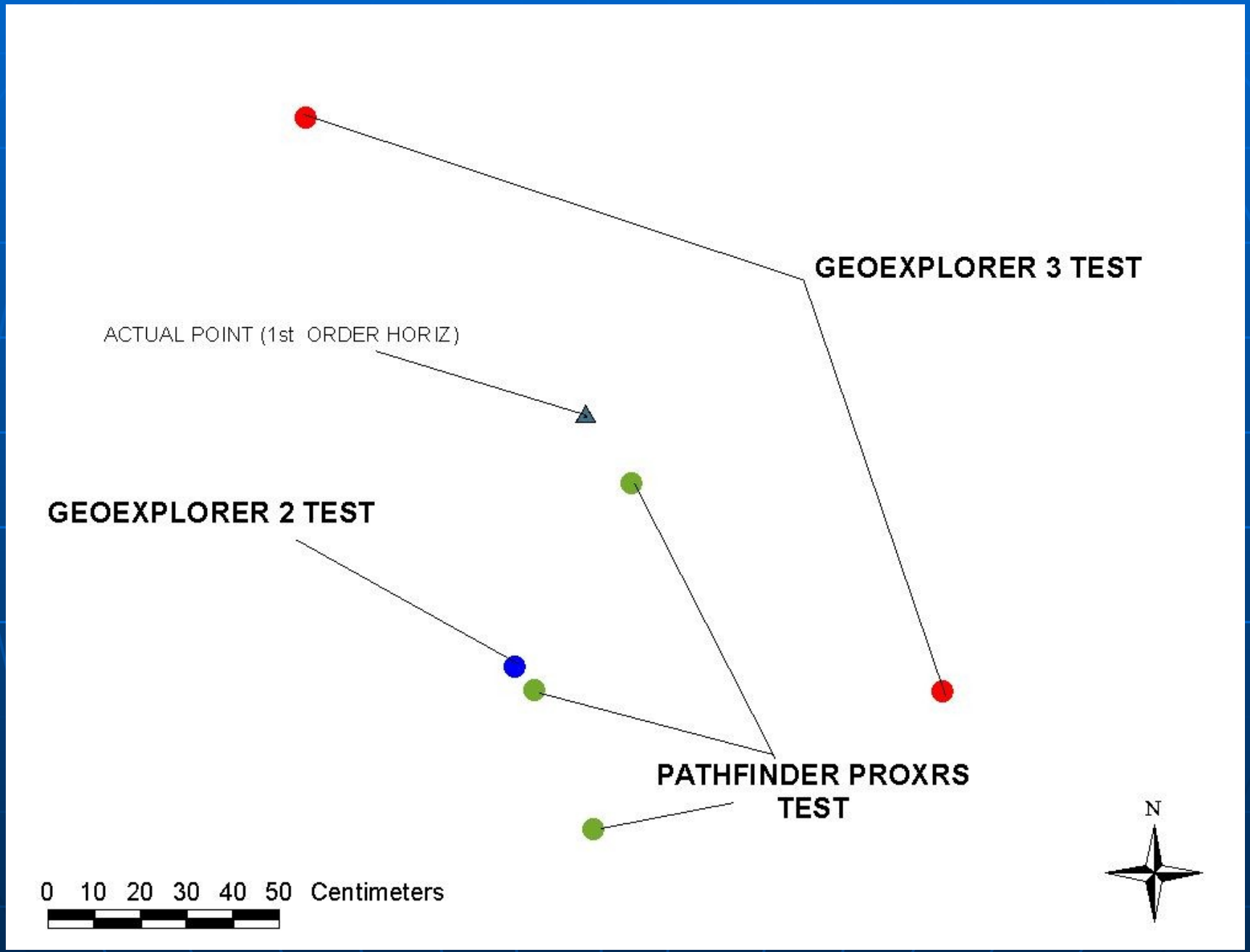
**TRIMBLE GEOEXPLORER III –** Collection of point, line, and area features with attribute information, 1 to 5 meter precision after differential correction, Integrated high-performance 12-channel GPS receiver and antenna

Carrier phase processing for sub-meter precision **= $5,000 Aprox.**

**TRIMBLE PATHFINDER PRO XRS –** 12 Channel, 50 cm + 1 ppm on a second-by-second basis (horizontal), 1 cm + 5 ppm with 45 minutes tracking satellites (with Centimeter Processing option)
RTCM beacon radio transmissions Better than 1 meter
Time to first fix 30 seconds (typical)
RTCM satellite differential correction Better than 1 meter =
**$10,000 Aprox**

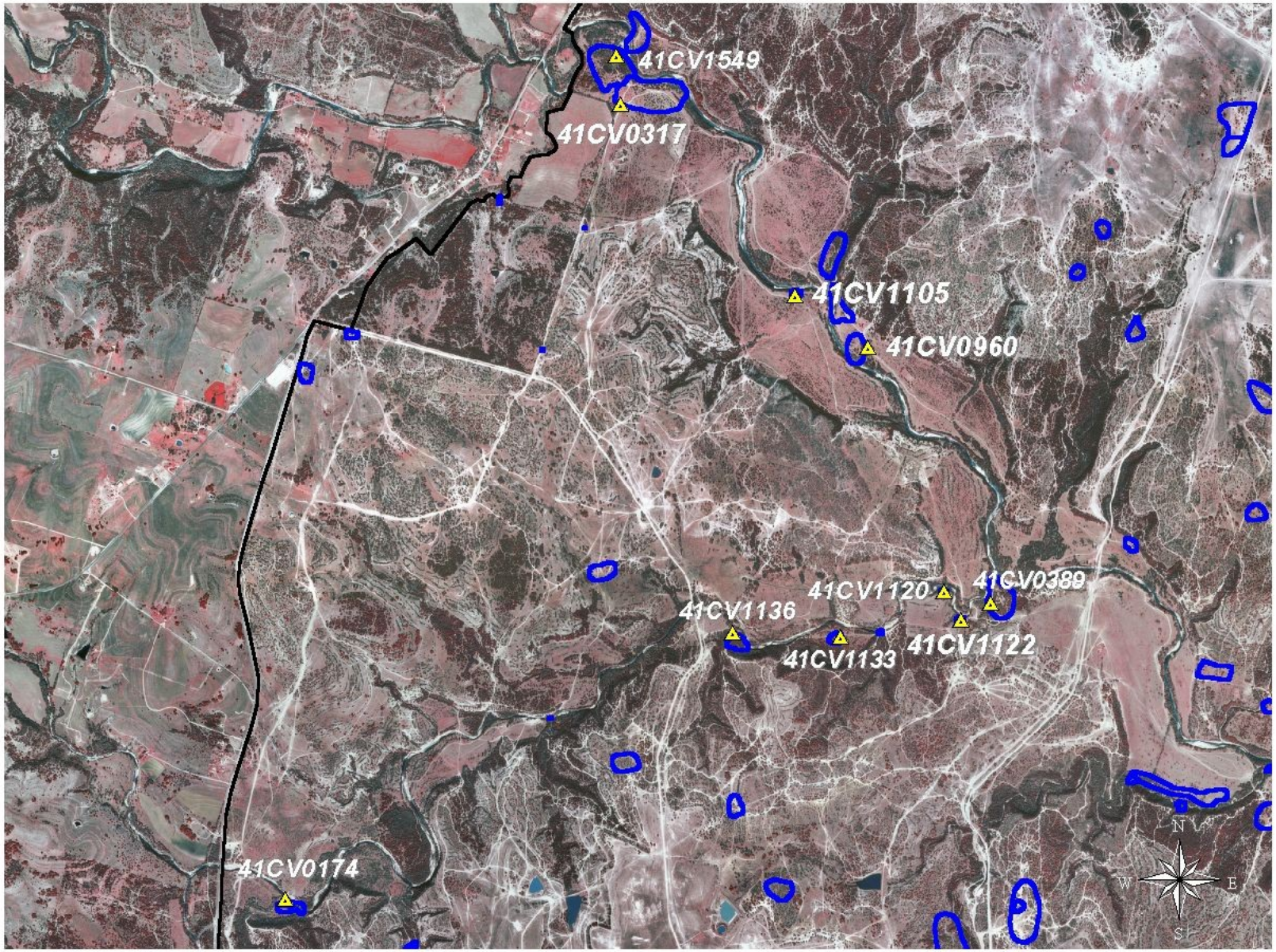
| SITE # | #OF POSITIONS |
|---|---|
| 41CV0174 (AUSTIN) | 619 |
| 41CV0317 | 2764 |
| 41CV0389 | 3160 |
| 41CV0960 | 2781 |
| 41CV1105 | 2940 |
| 41CV1120 | 398 |
| 41CV1122 | 2230 |
| 41CV1133 | 2694 |
| 41CV1136 | 1289 |
| 41CV1549 | 1663 |
| OP GOAT (Control) | 2663 |
| | |
| | |

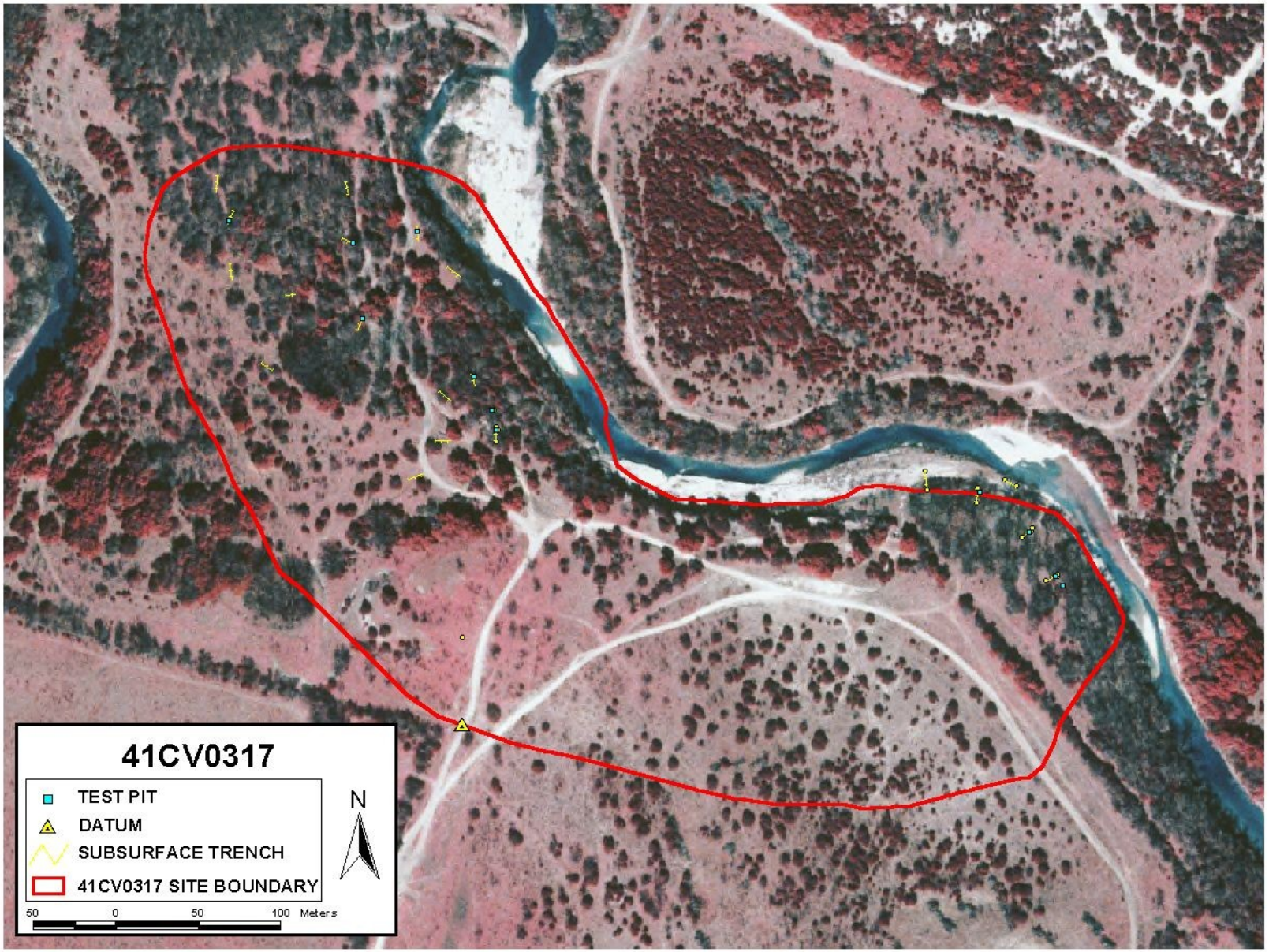
| NAME | TOTAL DIFFERENCE HORIZONTAL |
| --- | --- |
| GOAT (2663 PTS) | .128m |
| GOAT (398 PTS) | -.689m |
| GOAT (631 PTS) | -.871m |
| GOAT (1289 PTS) | -.044m |
| GOAT (2026 PTS) GEOII | -.759m |
| GOAT (3902 PTS) GEO III | .178m |

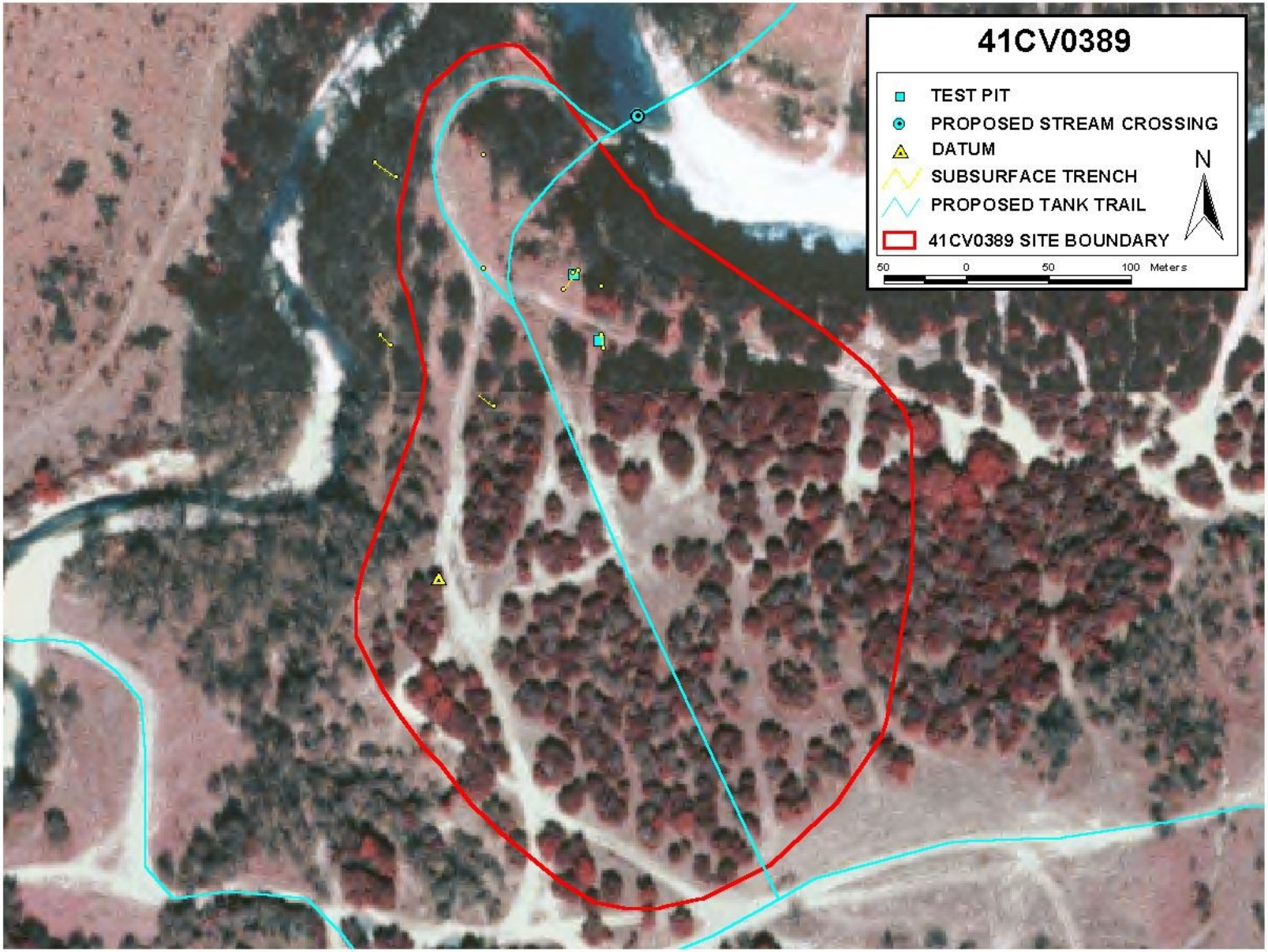

GEOEXPLORER 3 TEST
ACTUAL POINT (1st ORDER HORIZ)
GEOEXPLORER 2 TEST
PATHFINDER PROXRS
TEST
N
0 10 20 30 40 50 Centimeters

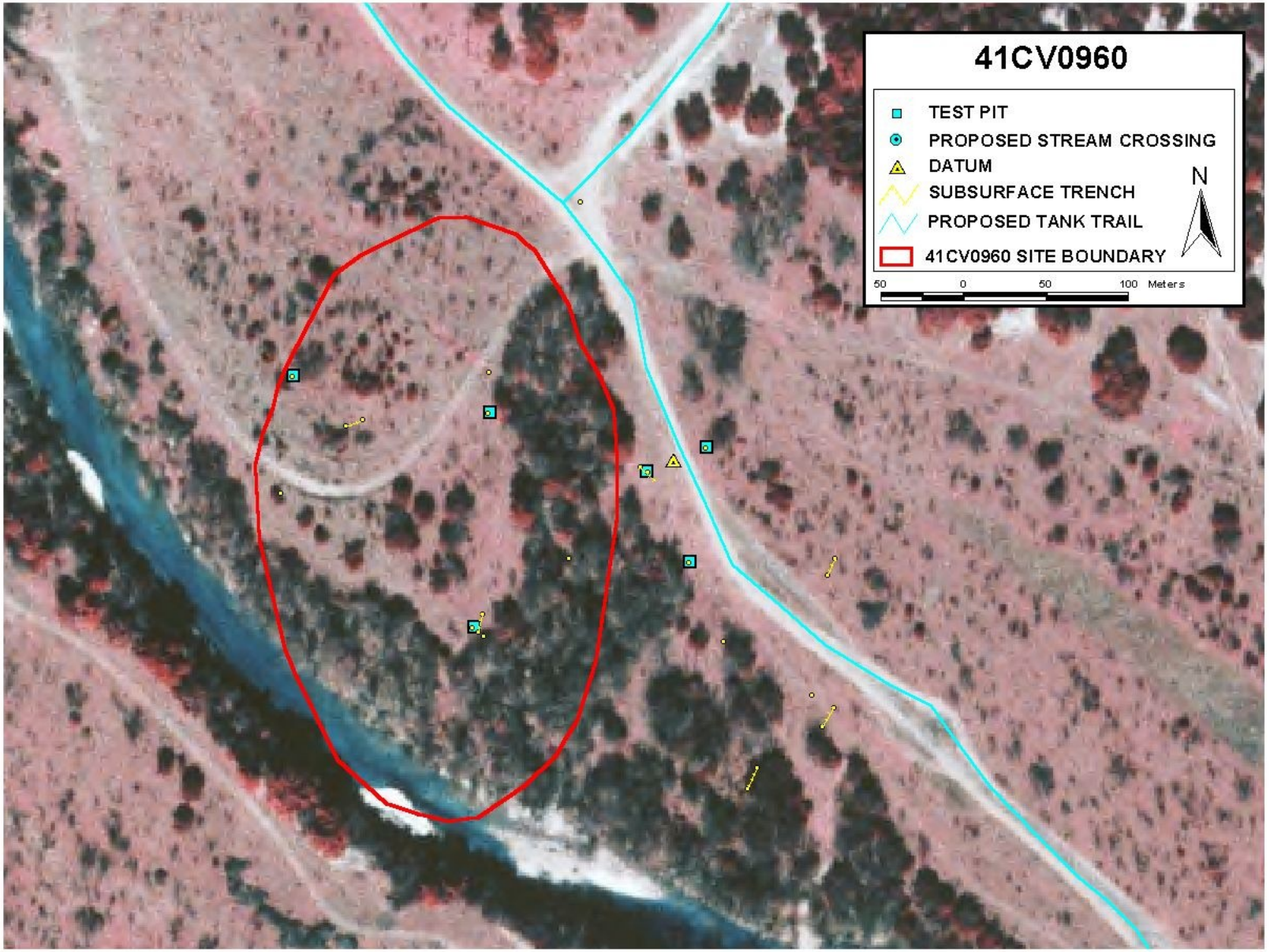
| | | | | | |
|---|---|---|---|---|---|
| 1 | 5000.00000 | 5000.00000 | 100.00000 | R | SPK |
| 2 | 4915.41973 | 5099.61706 | 99.41432 | R | SPK |
| 3 | 4978.61714 | 5052.14183 | 100.26476 | R | SPK |
| 41 | 4972.53153 | 5045.24668 | 100.16830 | TP | 4 NWC |
| 42 | 4973.30063 | 5048.77251 | 100.21707 | BT | 6 NEC |
| 45 | 4909.01255 | 5066.26935 | 99.55077 | BT | 5 NEC |
| 46 | 4902.46118 | 5062.38465 | 99.46983 | TP | 3 NWC |
| 47 | 4894.44730 | 5057.74192 | 100.32044 | BT | 5 SEC |
| 48 | 4884.94363 | 5063.76341 | 101.15036 | R | SPK |
| 53 | 4881.26499 | 5144.35340 | 100.23699 | R | SPK |
| 55 | 4891.58626 | 5130.60676 | 100.07836 | BT | 1 NWC |
| 56 | 4891.82326 | 5126.61225 | 100.23237 | TP | 1 NWC |
| 64 | 4897.21913 | 5153.09126 | 100.09708 | TP | 2 SEC |
| 65 | 4903.65335 | 5148.27388 | 99.86509 | BT | 4 NWC |
| 75 | 4886.61908 | 5059.03573 | 101.56009 | BT | 2 SEC |
| 76 | 4883.23546 | 5047.90914 | 101.55664 | BT | 2 SWC |
| 82 | 4864.95705 | 5069.15007 | 102.73750 | TP | 5 NEC |
| 87 | 4864.80614 | 4979.02003 | 101.76396 | R | SPK |
| 94 | 4827.57536 | 4983.19083 | 104.83467 | BT | 7 SWC |
| 95 | 4850.18541 | 4981.24049 | 102.30110 | BT | 7 NWC |
| 96 | 4842.46356 | 4983.59343 | 102.85850 | TP | 7 NEC |
| 102 | 4883.42424 | 4985.57275 | 101.84364 | BT | 3 SWC |
| 103 | 4888.99972 | 4989.51934 | 101.82220 | BT | 3 NWC |
| 104 | 4884.93531 | 4988.63194 | 101.80104 | TP | 6 NWC |

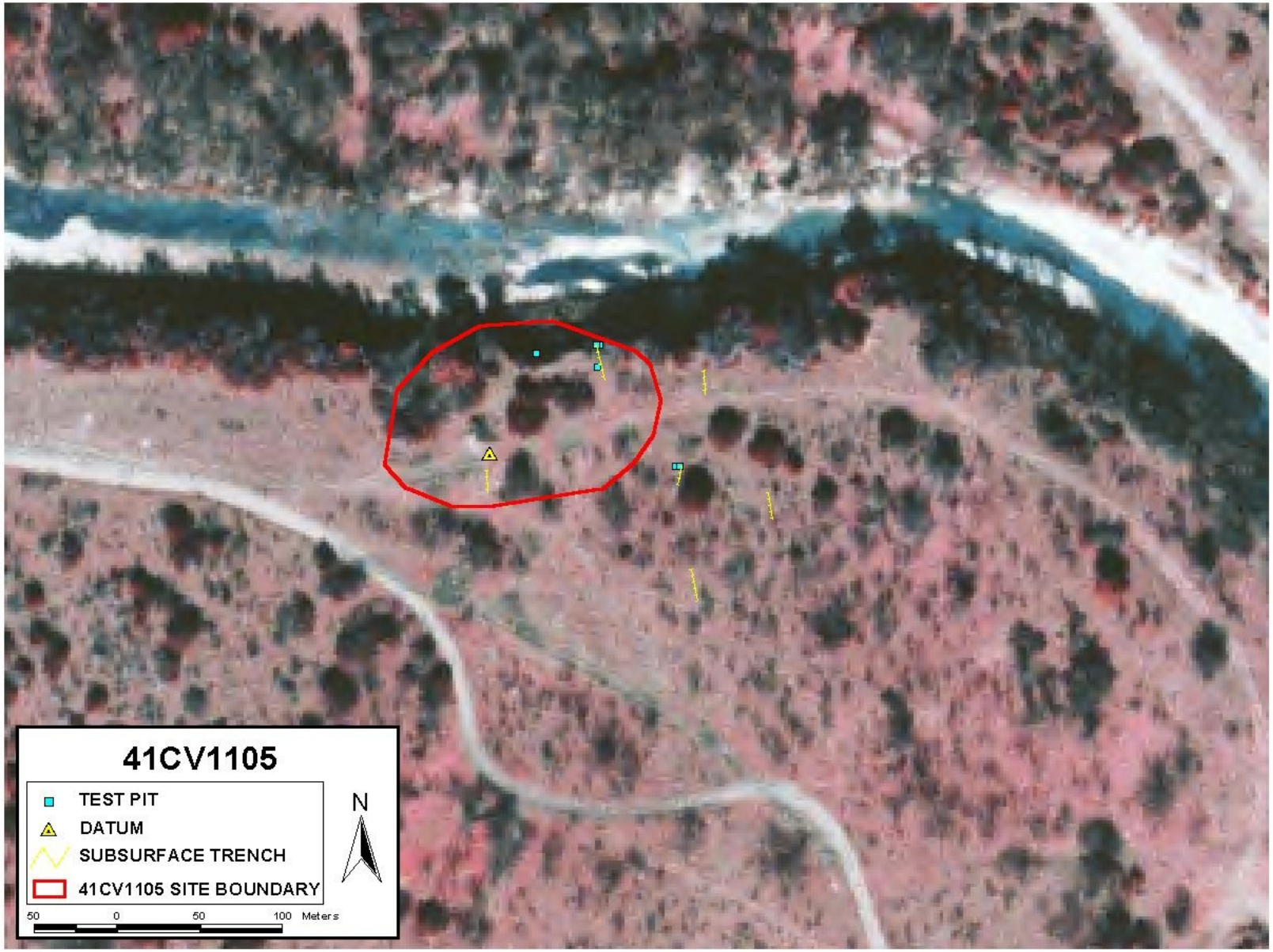
| | | | | | |
|---|---|---|---|---|---|
| 1 | 3455105.009 | 604172.3005 | 223.92538 | R | SPK |
| 2 | 3455020.429 | 604271.9176 | 223.3397 | R | SPK |
| 3 | 3455083.626 | 604224.4423 | 224.19014 | R | SPK |
| 41 | 3455077.541 | 604217.5472 | 224.09368 | TP | 4_NWC |
| 42 | 3455078.31 | 604221.073 | 224.14245 | BT | 6_NEC |
| 45 | 3455014.022 | 604238.5699 | 223.47615 | BT | 5_NEC |
| 46 | 3455007.47 | 604234.6852 | 223.39521 | TP | 3_NWC |
| 47 | 3454999.456 | 604230.0424 | 224.24582 | BT | 5_SEC |
| 48 | 3454989.953 | 604236.0639 | 225.07574 | R | SPK |
| 53 | 3454986.274 | 604316.6539 | 224.16237 | R | SPK |
| 55 | 3454996.595 | 604302.9073 | 224.00374 | BT | 1_NWC |
| 56 | 3454996.832 | 604298.9128 | 224.15775 | TP | 1_NWC |
| 64 | 3455002.228 | 604325.3918 | 224.02246 | TP | 2_SEC |
| 65 | 3455008.662 | 604320.5744 | 223.79047 | BT | 4_NWC |
| 75 | 3454991.628 | 604231.3362 | 225.48547 | BT | 2_SEC |
| 76 | 3454988.244 | 604220.2096 | 225.48202 | BT | 2_SWC |
| 82 | 3454969.966 | 604241.4506 | 226.66288 | TP | 5_NEC |
| 87 | 3454969.815 | 604151.3205 | 225.68934 | R | SPK |
| 94 | 3454932.584 | 604155.4913 | 228.76005 | BT | 7_SWC |
| 95 | 3454955.194 | 604153.541 | 226.22648 | BT | 7_NWC |
| 96 | 3454947.473 | 604155.8939 | 226.78388 | TP | 7_NEC |
| 102 | 3454988.433 | 604157.8733 | 225.76902 | BT | 3_SWC |
| 103 | 3454994.009 | 604161.8198 | 225.74758 | BT | 3_NWC |
| 104 | 3454989.944 | 604160.9324 | 225.72642 | TP | 6_NWC |


41CV1549
41CV0317
41CV1105
41CV0960
41CV1120
41CV0389
41CV1136
41CV1122
41CV1133
41CV0174
N
W
E
S


41CV0317
TEST PIT
DATUM
SUBSURFACE TRENCH
41CV0317 SITE BOUNDARY
N
50 0 50 100 Meters

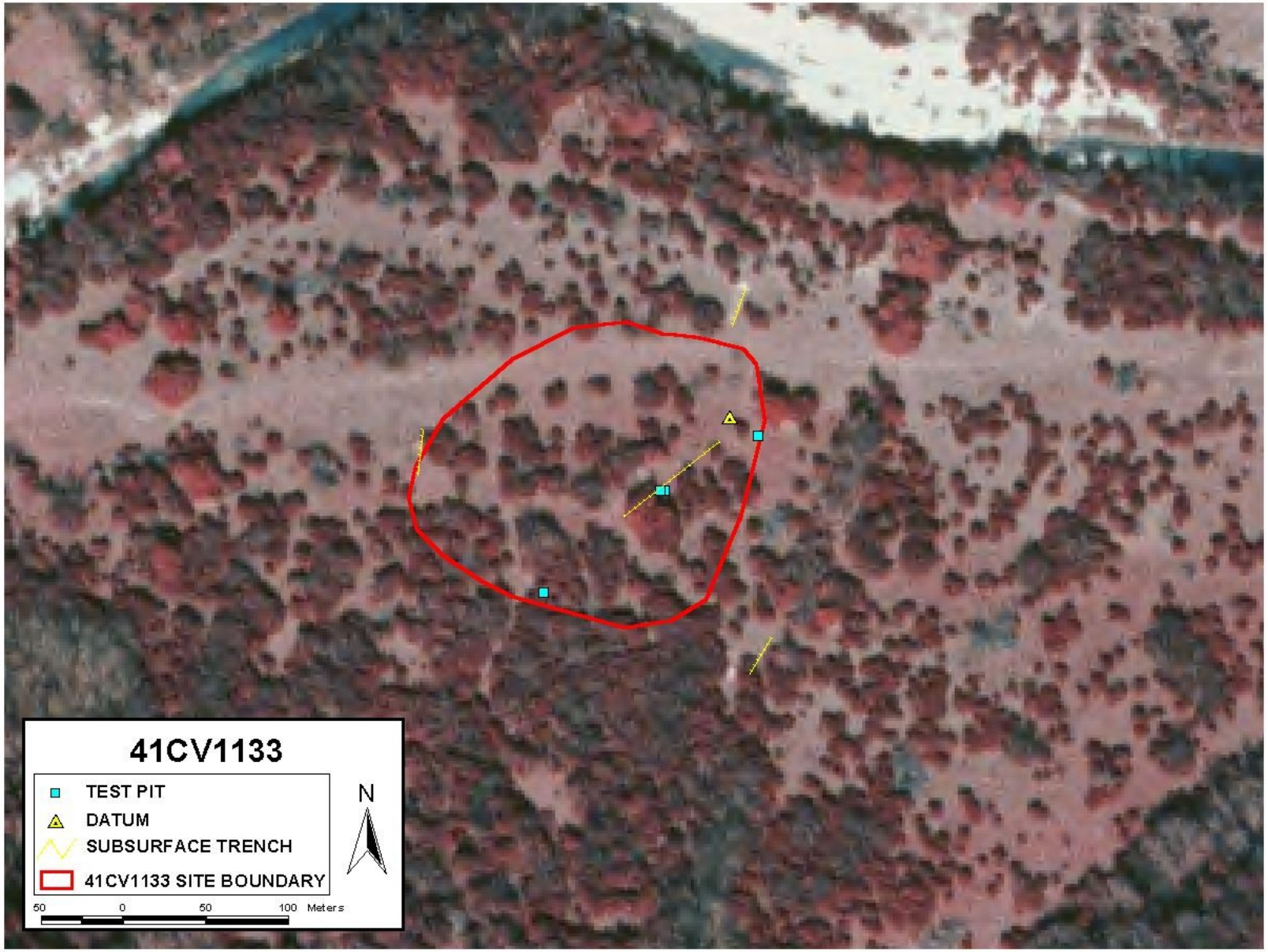

41CV0389
TEST PIT
PROPOSED STREAM CROSSING
DATUM
SUBSURFACE TRENCH
PROPOSED TANK TRAIL
41CV0389 SITE BOUNDARY
N
50 0 50 100 Meters

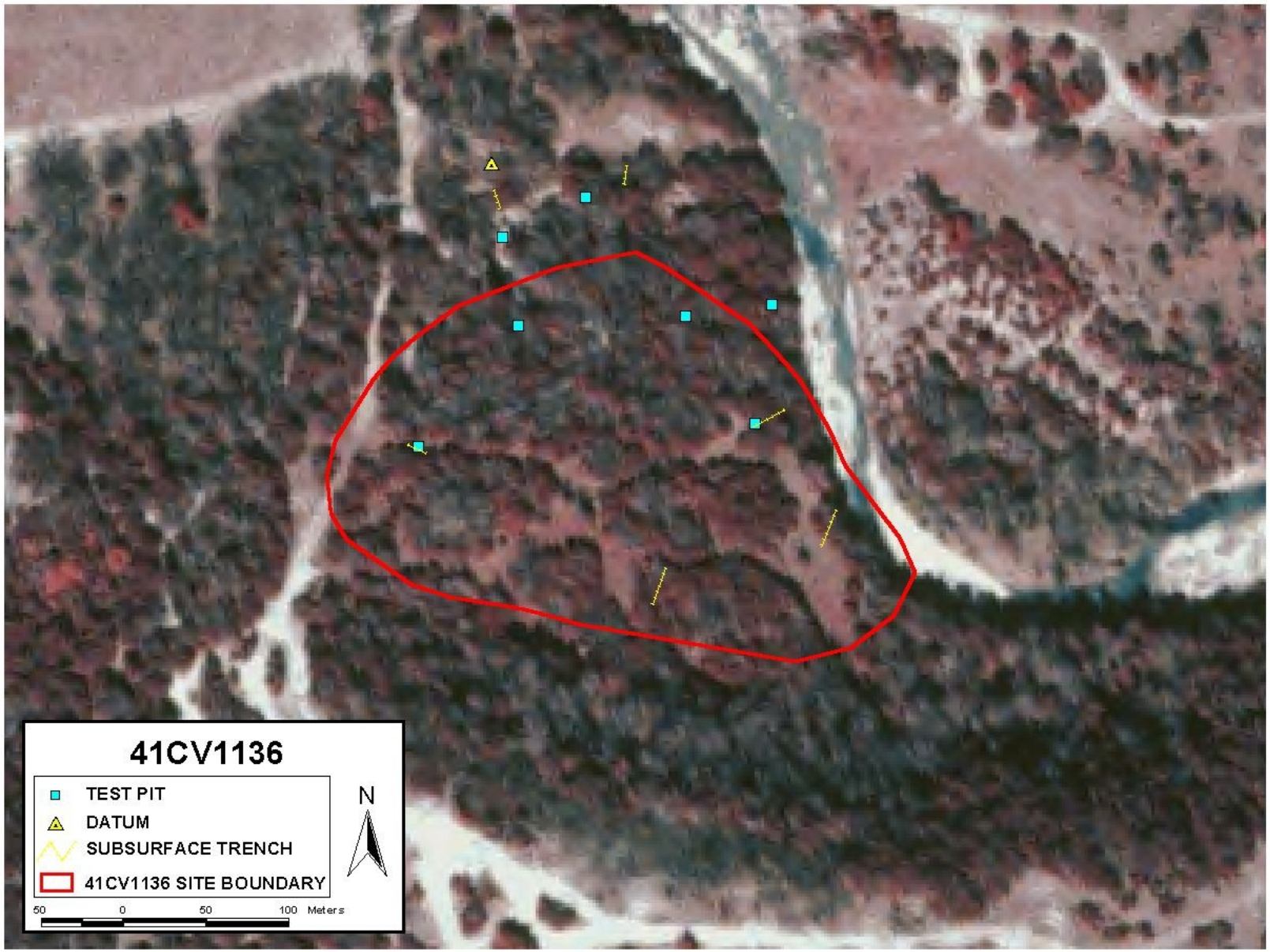

41CV0960
TEST PIT
PROPOSED STREAM CROSSING
DATUM
SUBSURFACE TRENCH
PROPOSED TANK TRAIL
41CV0960 SITE BOUNDARY
N
50 0 50 100 Meters

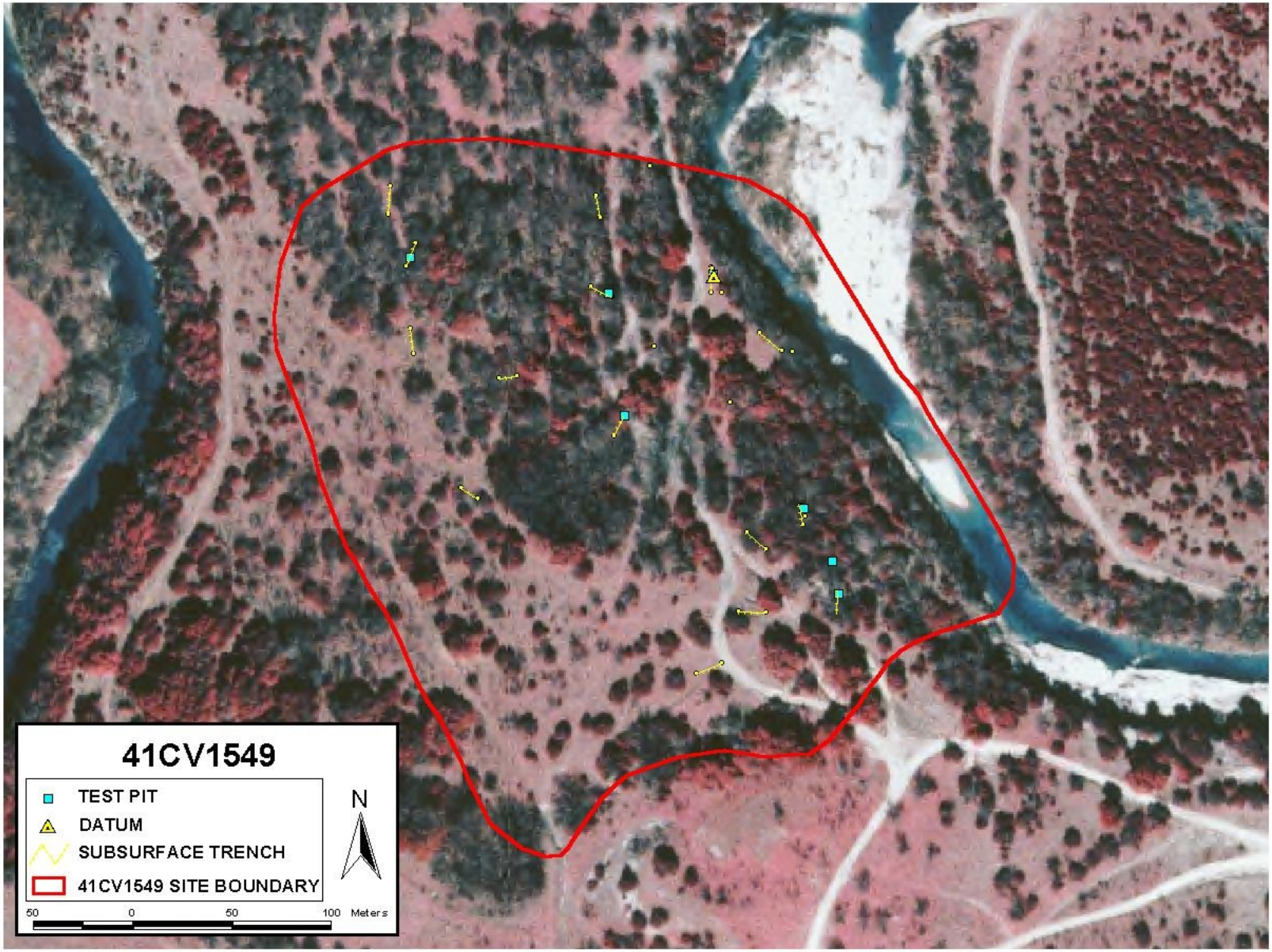

41CV1105
TEST PIT
DATUM
SUBSURFACE TRENCH
41CV1105 SITE BOUNDARY
N
50 0 50 100 Meters

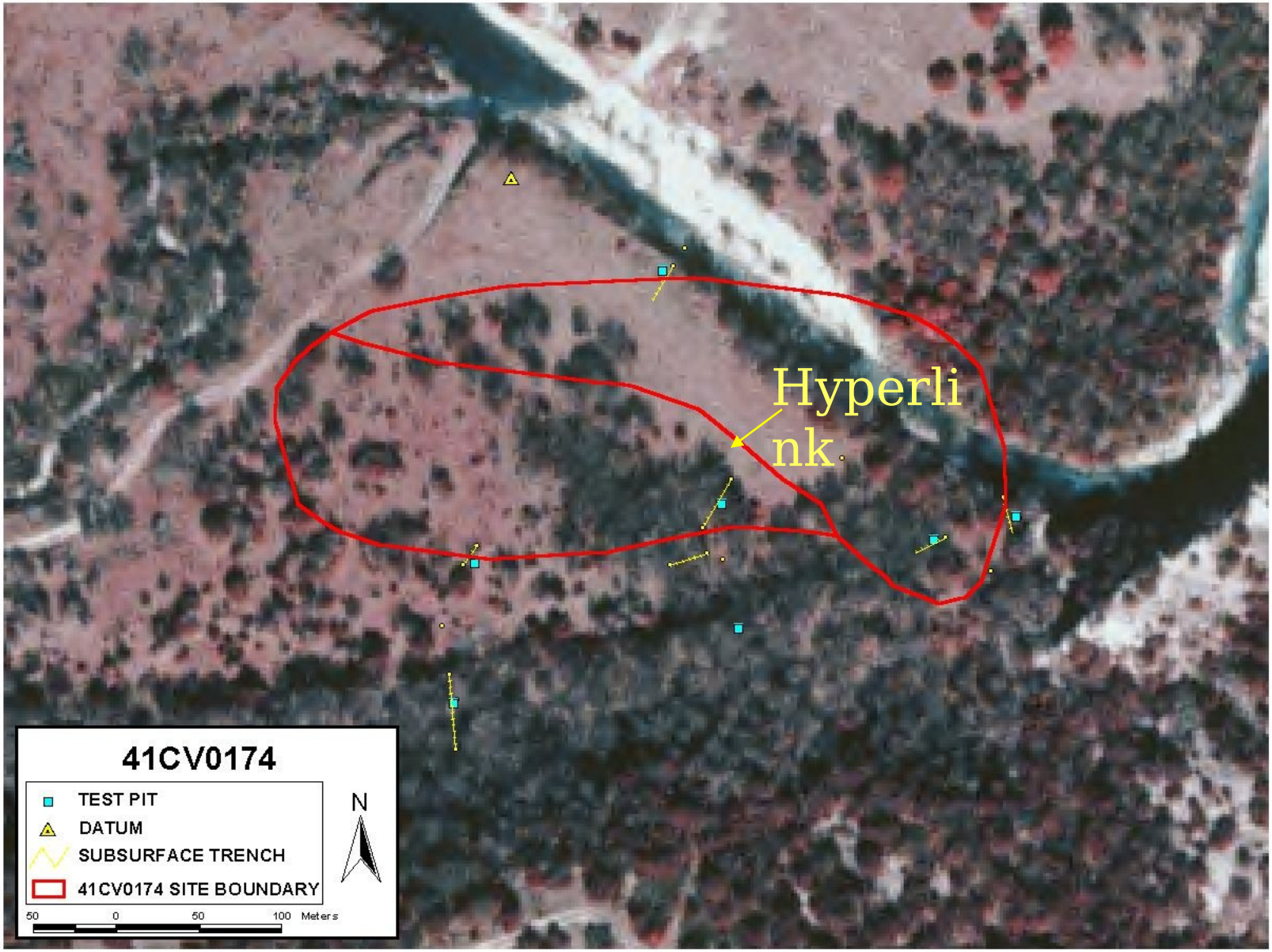
41CV1120
TEST PIT
DATUM
SUBSURFACE TRENCH
41CV1120 SITE BOUNDARY
N
50 0 50 100 Meters

41CV1122
TEST PIT
DATUM
SUBSURFACE TRENCH
41CV1122 SITE BOUNDARY
N
50 0 50 100 Meters

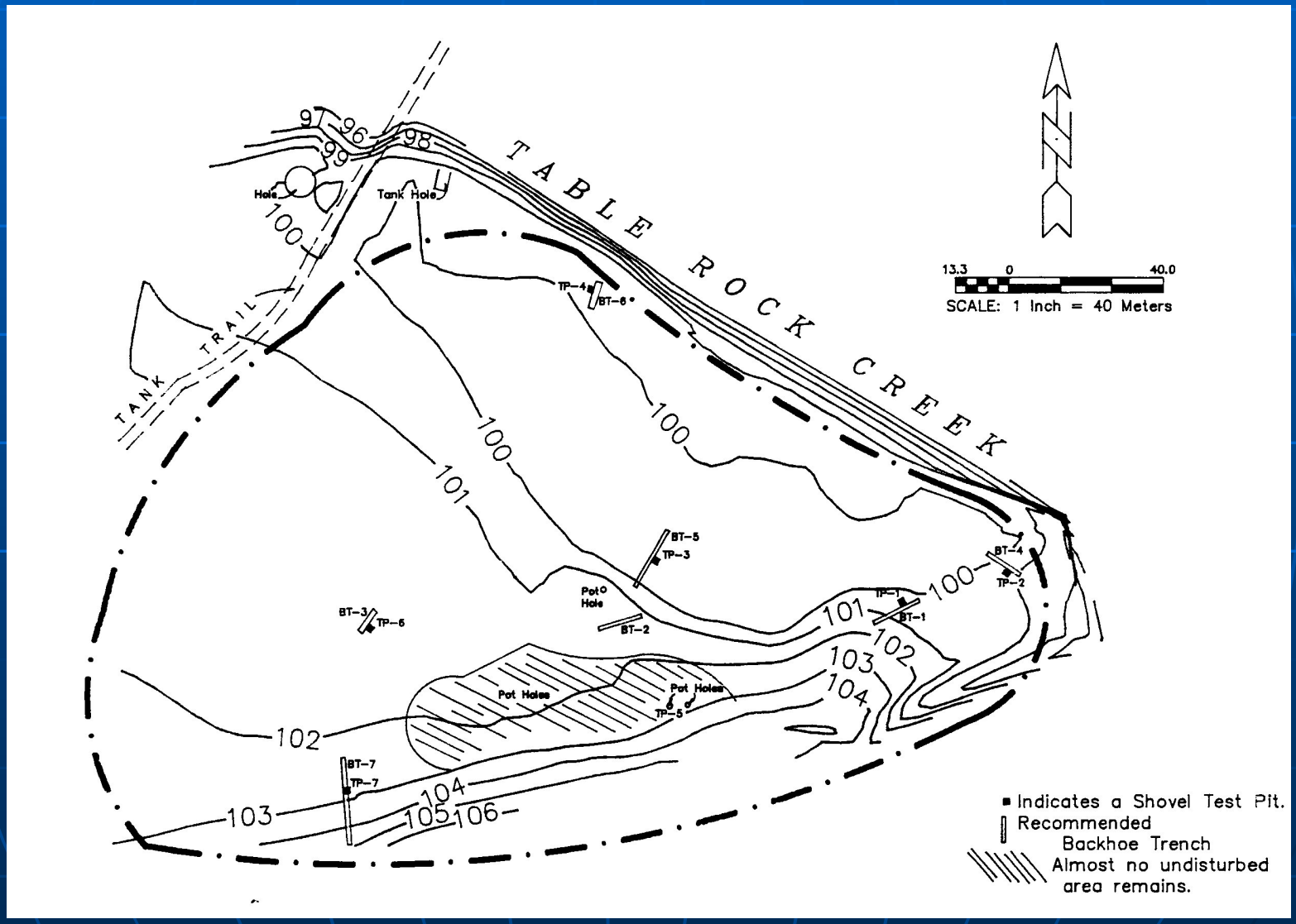

41CV1133
TEST PIT
DATUM
SUBSURFACE TRENCH
41CV1133 SITE BOUNDARY
N
50 0 50 100 Meters

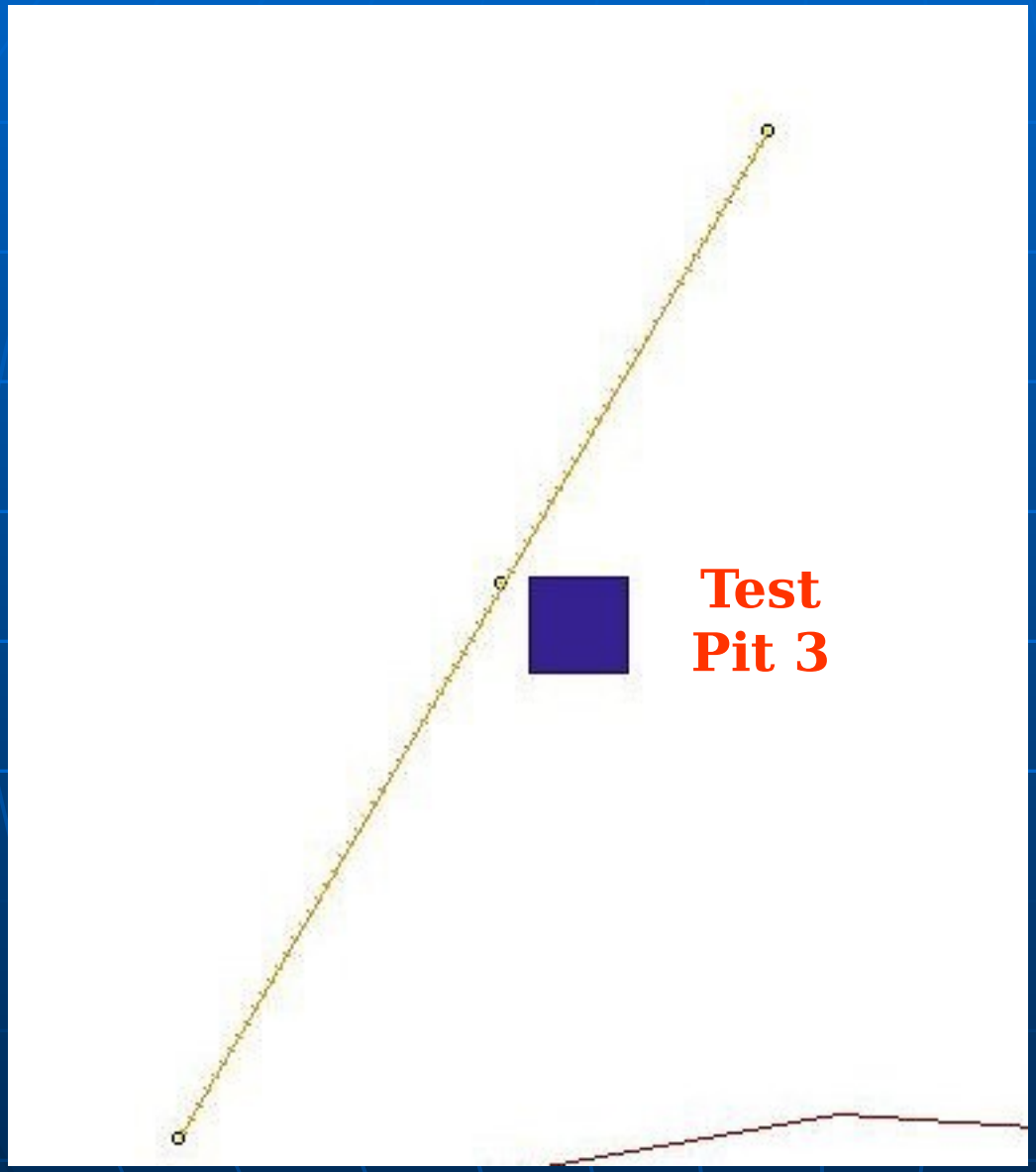

41CV1136
TEST PIT
DATUM
SUBSURFACE TRENCH
41CV1136 SITE BOUNDARY
N
50 0 50 100 Meters


41CV1549
TEST PIT
DATUM
SUBSURFACE TRENCH
41CV1549 SITE BOUNDARY
N
50
0
50
100
Meters


Hyperlink
41CV0174
TEST PIT
DATUM
SUBSURFACE TRENCH
41CV0174 SITE BOUNDARY
N
50 0 50 100 Meters

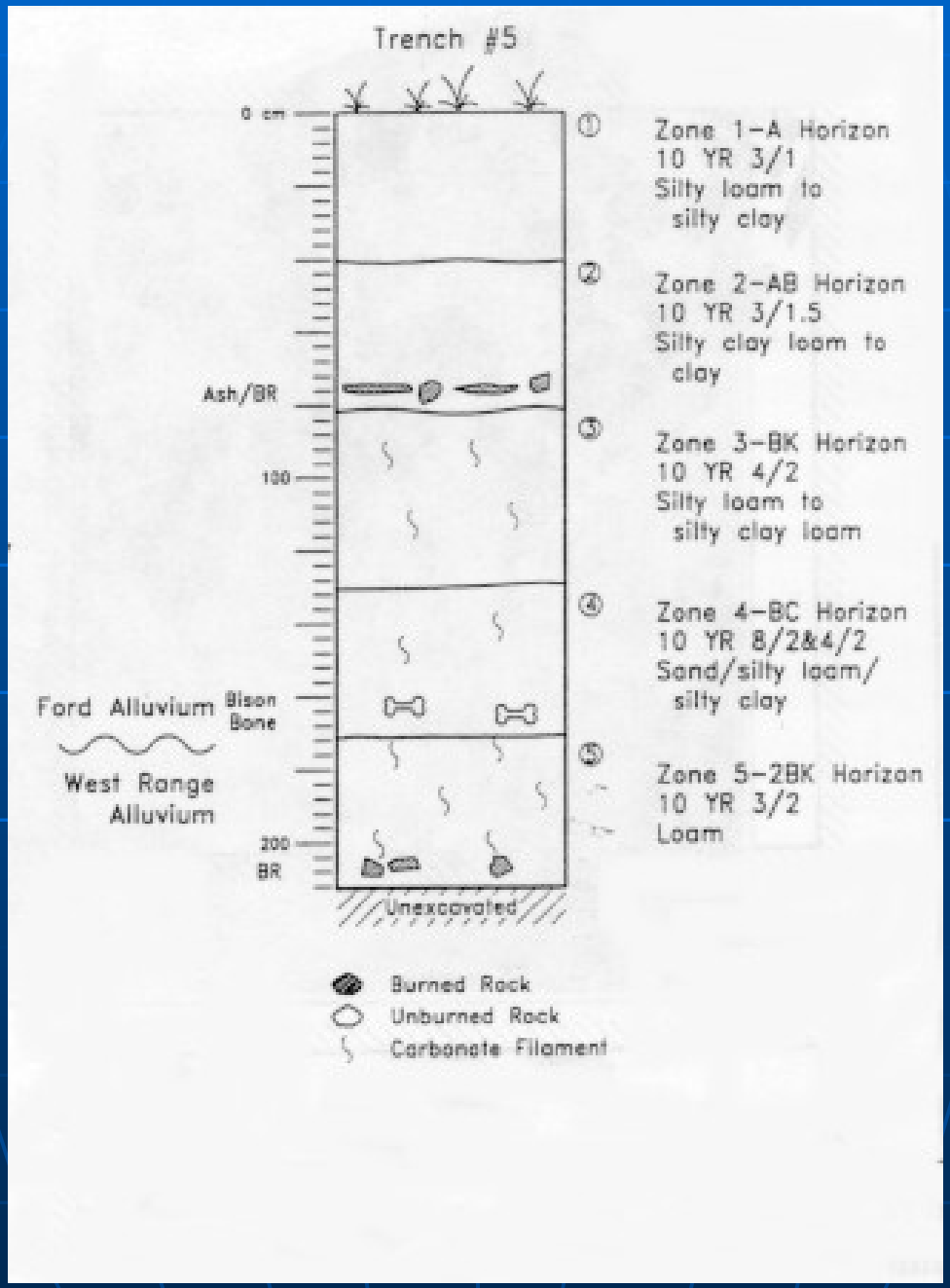
# SURVEYOR'S MAP of 41CV0174






**41CV174:**

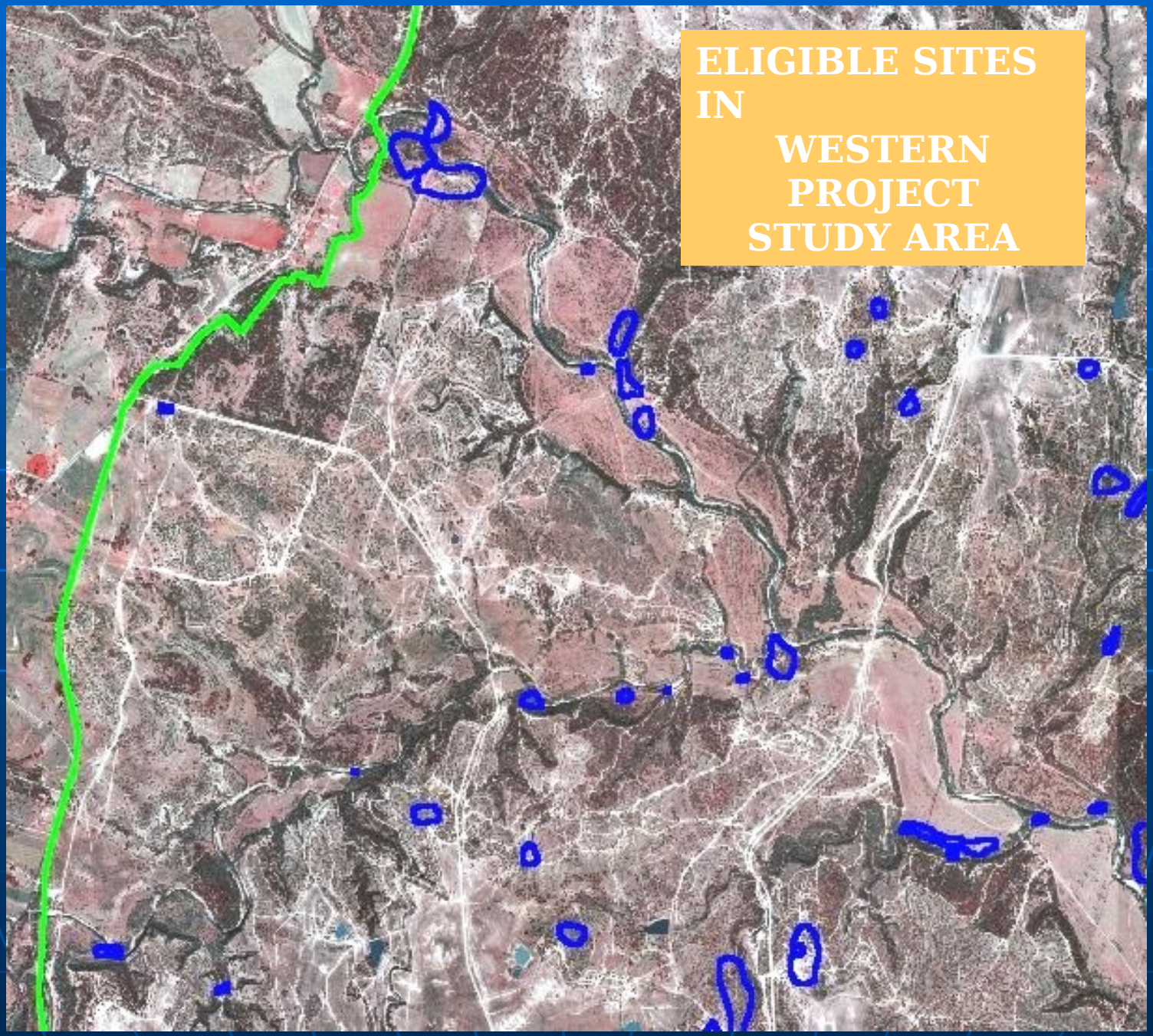
- **NRHP Eligibility Testing conducted in 1993.**
- **Backhoe Trench 5 placed north of burned rock midden feature.**
- **Lens of Bison Bone with ceramic shards in Eastern**

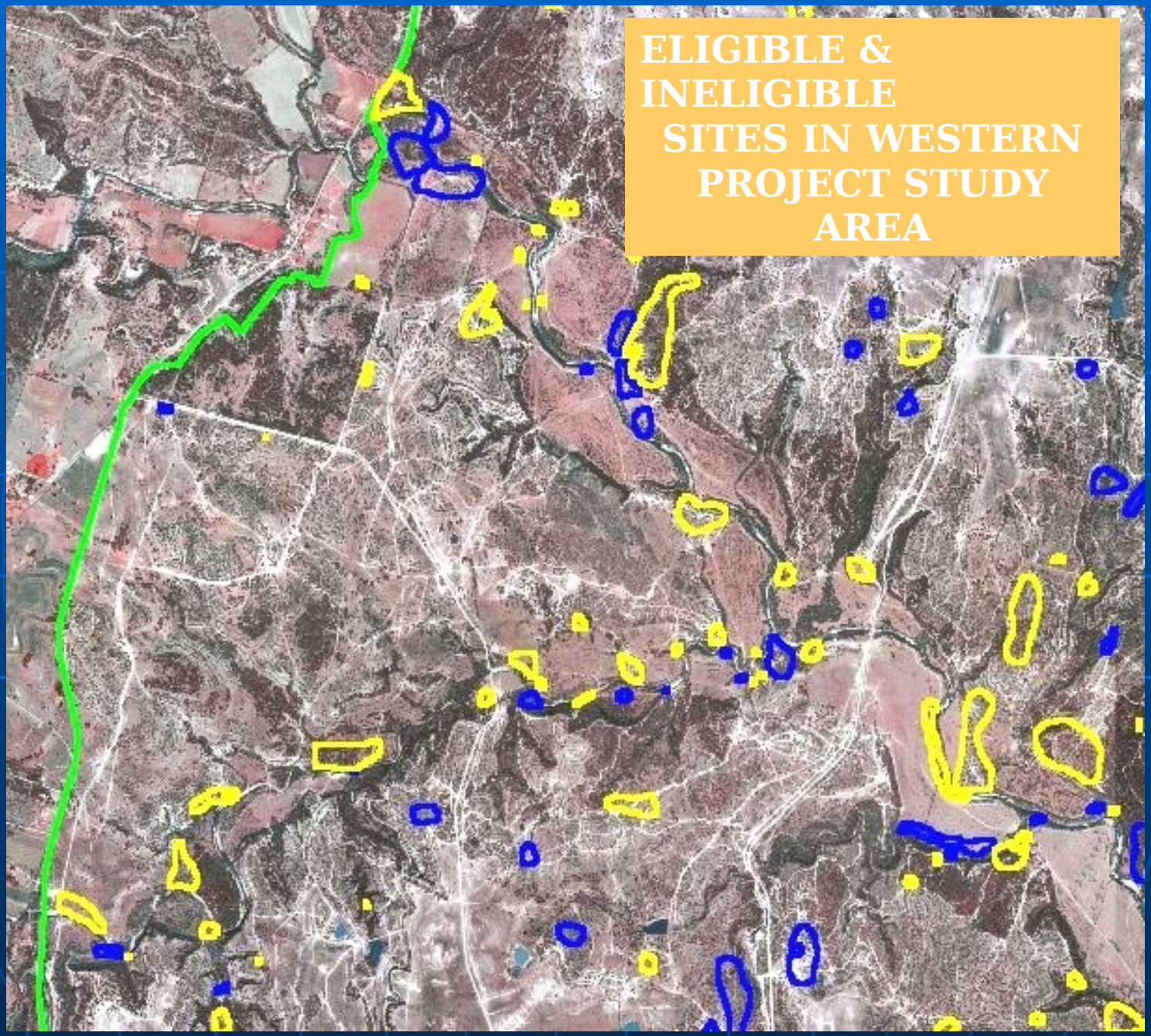

Trench #5
0 cm
Ash/BR
100
Ford Alluvium
Bison Bone
West Range Alluvium
200
BR
Unexcavated
① Zone 1-A Horizon
10 YR 3/1
Silty loam to silty clay
② Zone 2-AB Horizon
10 YR 3/1.5
Silty clay loam to clay
③ Zone 3-BK Horizon
10 YR 4/2
Silty loam to silty clay loam
④ Zone 4-BC Horizon
10 YR 8/2&4/2
Sand/silty loam/ silty clay
⑤ Zone 5-2BK Horizon
10 YR 3/2
Loam
Burned Rock
Unburned Rock
Carbonate Filament

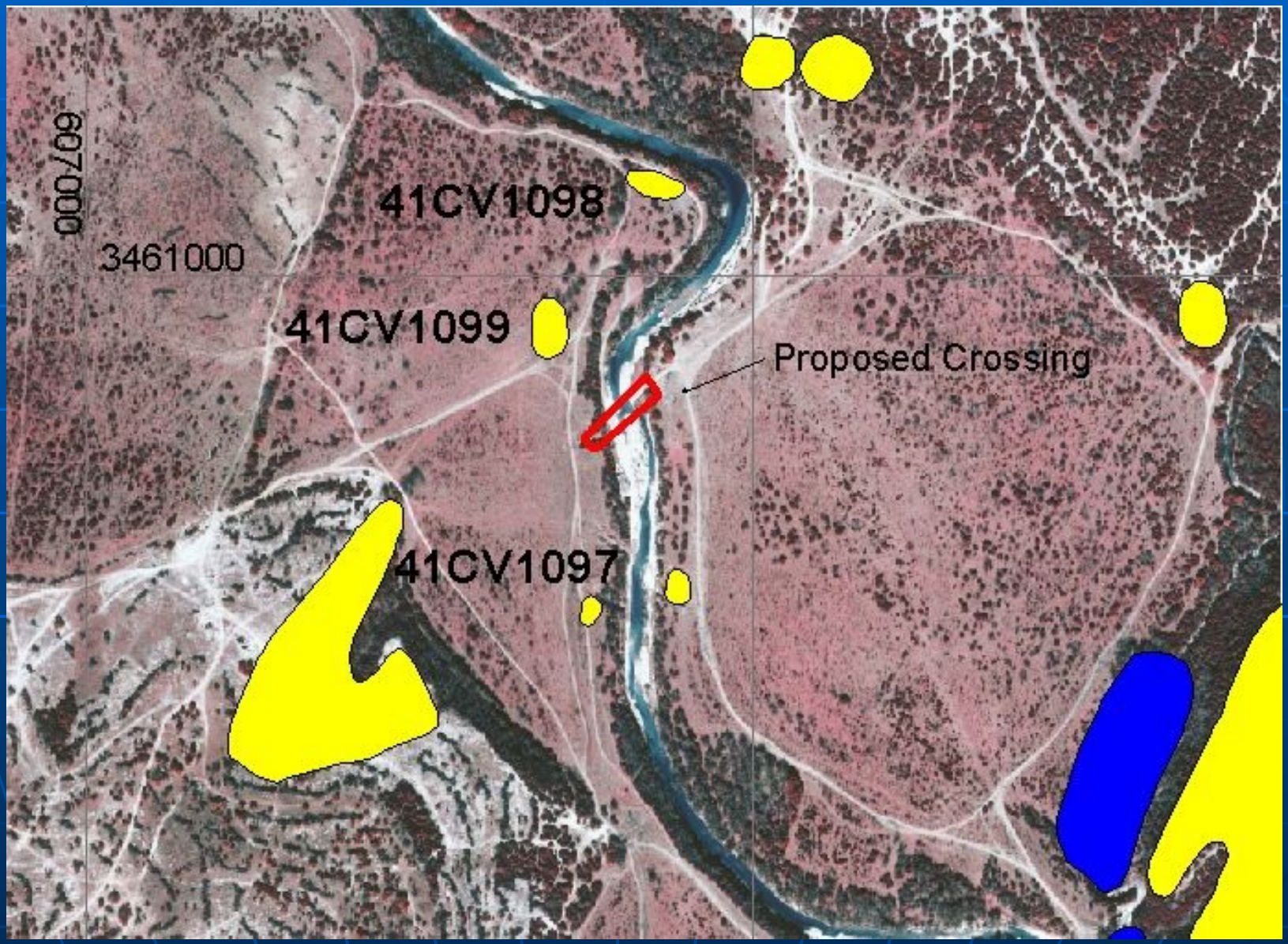
# Ceramics from Backhoe Trench 5

# Bison Bone in Test Pit 3

# Archaeological Excavations in Training Areas


ELIGIBLE SITES
IN
WESTERN
PROJECT
STUDY AREA


ELIGIBLE &
INELIGIBLE
SITES IN WESTERN
PROJECT STUDY
AREA


607000
3461000
41CV1098
41CV1099
Proposed Crossing
41CV1097

# To build crossing here…

# Subsurface Testing is Required…

# Ft. Hood Archaeology Sites